

## **Well Flow Management**

## Well Testing | Measurement

#### **Wellhead Chart Recorder**

Chart recorders are used in Expro field operations to provide accurate, reliable measurement and recording of pressure and temperature in a wide variety of applications.

The Barton 242E temperature and pressure recorder is a versatile and rugged instrument designed for general temperature and pressure applications. It records monitored temperature and pressure on a 12-inch diameter chart. Up to four elements may be used in any combination to operate up to four individual recording pens.

**Static pressure** - The static pressure system consists of a helical bourdon tube connected to system piping. The static pressure element measures the static pressure in a piping system. Elements are available for measuring pressures ranging from 0 to 30,000 psi.

**Temperature** - The temperature output consists of a spiral bourdon tube, a capillary, and a bulb. All parts are made of stainless steel. The bulb is fitted with a bendable extension, and the capillary is protected with stainless steel armour.

**Recording mechanism** - The recording mechanism is a linkage and pen system that permanently records data. It converts mechanical inputs from the pressure and temperature elements to link lines on a revolving chart.

All operative parts of the recorder mechanism are made of stainless steel for a long field life. The pen mount is exceptionally rugged. All lines are adjustable. Screw adjustments for zero, range, and linearity assure fast and accurate calibration.

Case - The 242E is housed in an aluminium case with a hinged door providing access for chart changes and calibration adjustment. The Model 242E connects to the system or transmitter through fittings in the bottom of the case.

#### **Applications**

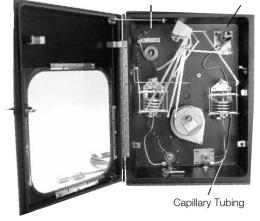
- · Offshore well testing
- Onshore well testing
- Production well testing
- Flow-back and clean-up well testing

#### Features and benefits

- Various ranges of pressure and temperature
- Rugged construction for field use
- Accurate and reliable to industry standards
- Free standing or mountable (wall and yoke)

Temperature Element Pre (Bourdon Tube) (Bourdon Tube)

Pressure Element (Bourdon Tube)



expro.com/welltesting Date 05/2022 | Revision 1.0



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### **Wellhead Chart Recorder**

Technical specifications				'	
Case (242E)	Die-cast aluminium, black polyurethane electrostatic powder paint, hinged glass-front door, neoprene gasket seal				
Chart drive	Chart size	Chart rotation	Number of pens	Pen style	
Spring-wound or Battery-operated	12-inch diameter	60 minutes to 31 days	1 to 4 (one per element)	Disposable	
Element					
Туре	Number	Range	Accuracy	Material	
Pressure: helical (bourdon) Temperature: helical (bourdon)	1 to 4 (any combination)	Helical (0 to 30" Hg vacuum to 0 to 30,000 psi)	Static pressure ±1% of full scale Temperature ±1% of full scale	Helical Stainless steel K-Monel	
Class V Thermal System (Am	bient Temperature Compe	ensated)			
Class VA	Class VB				
Fully compensated -40° to 600°F (-40° to 315°C)	Case compensated -40° to 600°F (-40° to 315°	°C)			
Class I Thermal System: (Am	bient temperature compe	nsated)			
Class IA	Class IB				
Fully compensated	Case compensated				
Class I Range Limits					
Ethyl-Benzene (EB)	Kerosene (KER)		Alcohol (ALC)	Alcohol (ALC)	
-125° to 350°F (-87° to 177°C)	-20° to 500°F (-29° to 260°C)		-200° to 150°F (-129° to 66°C)		

Note: Other sizes, configurations and pressure ratings are available to meet most applications, for more information contact your local Expro representative or email **welltesting@expro.com** 

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